

Serial No. 10/029,981

NIP-144-02

REMARKS

The Applicant requests reconsideration of the rejection.
Claims 10-14 and 21-27 are pending.

The Applicants request acknowledgement of the claim for priority in this case. The certified priority document (JP 10-070201, filed March 19, 1998) was filed in the parent case, U.S. Serial No. 09/268,637.

In view of the cancellation of claims 15-20, the outstanding rejections of claims 15-20 under 35 U.S.C. §112 and §102(b) and §103(a) are moot. The Applicants make no admission as to the propriety of these rejections.

Claims 10-15 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Petschek et al U.S. Patent No. 5,389,339 (Petschek) in view of Kopaciewicz U.S. Patent No. 6,048,457 (Kopaciewicz).

Petschek is applied as disclosing a computer-controlled automated system for the purification of DNA from biological samples. The Examiner particularly cites Petschek's "movable piston" which varies the volume of an air cylinder operably connected to a pipette arm pipetting and in column 2, lines 61-65. The Examiner also refers to Figure 2A of Petschek, disclosing a movable nozzle connected via a pipe to the movable piston, and Figure 1B which discloses the movable

Serial No. 10/029,981

NIP-144-02

nozzle and a holder 58, together with elongated pipette tips 80, 81.

The Examiner notes, however, that Petschek does not disclose a silica-containing pipette tip as required by the claims, but cites Kopaciewicz for this teaching.

The Applicants have amended independent claim 10 to more particularly point out and distinctly claim the means for supplying an eluting solution, and the liquid sucking-and-discharging operating means of the invention. An important feature of the invention is the use of the eluting solution in two parts, namely the "first eluting solution" and the "second eluting solution".

In the prior art, an eluting solution has been known to elute the nucleic acid from its binding to a solid phase substance. However, in the prior art, the eluting process is performed only once with a quantity of the eluting solution.

As now claimed, the eluting process is performed with first and second eluting solutions. By performing the eluting process with first and second eluting solutions, a higher percentage of recovered nucleic acid results, by comparison with an equal quantity of eluting solution applied singly in the prior art.

Serial No. 10/029,981

NIP-144-02

For example, when a single eluting step is performed with 200 μ L of eluting solution, only 0.90 μ g of the nucleic acid is withdrawn. On the other hand, 200 μ L of eluting solution divided into two eluting procedures results in withdrawal of 0.96 μ g of the nucleic acid.

Thus, it is not an anticipation of the invention to find an eluting process in the prior art, and there is no question of obviousness to divide the elution into plural steps because, as demonstrated above, the plural steps provide an unexpected result: namely, that a greater withdrawal of nucleic acid is achieved with plural eluting steps, even given an identical volume of eluting solution.

The newly-added language in the final two paragraphs of independent claim 10 particularly recite this feature in terms of the function of the claimed liquid sucking-and-discharging operating means. Further, the purified product contained is recited with the function of receiving the purified product of the nucleic acid by the discharging of the first and second eluting solutions from the nucleic acid trapping pipette tip.


New claims 21-27 provide additional scope of protection. Each claim is dependent from claim 10.

Serial No. 10/029,981

NIP-144-02

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

Respectfully submitted,


Daniel J. Stanger
Registration No. 32,846
Attorney for Applicant

MATTINGLY, STANGER & MALUR, P.C.
1800 Diagonal Road, Suite 370
Alexandria, Virginia 22314
Telephone: (703) 684-1120
Facsimile: (703) 684-1157
Date: November 20, 2003

MATTINGLY, STANGER & MALUR, P.C.

ATTORNEYS AT LAW

1800 DIAGONAL ROAD, SUITE 370

ALEXANDRIA, VIRGINIA 22314

(703) 684-1120

JOHN R. MATTINGLY
DANIEL J. STANGER
SHRINATH MALUR*

GENE W. STOCKMAN
OF COUNSEL

JEFFREY M. KETCHUM
Registered Patent Agent

* Bar Membership Other Than Virginia

OFFICIAL

PATENT, TRADEMARK
AND COPYRIGHT LAW

FACSIMILE: (703) 684-1157

**RECEIVED
CENTRAL FAX CENTER**

NOV 20 2003

Date: November 20, 2003

FACSIMILE COVER LETTER

Facsimile Number: (703) 872-9306

To: Examiner F. Prats
Group Art Unit 1651, USPTO

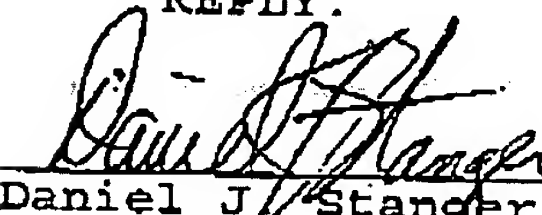
From: Mr. Daniel J. Stanger
MATTINGLY, STANGER & MALUR, P.C.

Re: USSN 10/029,981
Attorney Docket No.: NIP-144-02

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that the following listed documents are being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below:

Transmittal Letter; and
REPLY.


Daniel J. Stanger
Reg. No. 32,846

11/20/2003
Date

Total Number of Pages (including cover sheet): 12

If the facsimile you receive is incomplete or illegible,
please CALL (703) 684-1120. Thank you.